

## Attachment 11 Program Preferences

### PSP Requirements

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### Introduction

This attachment demonstrates that this Proposal contains projects that meet multiple Proposition 1E Program Preferences, as defined in Guidelines, Section II.F. In accordance with the PSP, the following discussion identifies the specific Program Preferences that the Proposal will meet; the certainty with which the Proposal will meet the Program Preference(s); and the breadth and magnitude to which the Program Preference(s) will be met.

### Program Preferences Met by the Proposal

The Integrated Regional Water Management (IRWM) Program is designed to encourage integrated regional management of water resources, including flood management, and to provide funding for projects that support integrated water management approaches. To that end, proposals should meet as many of the Program Preferences as possible to demonstrate that the projects take an integrated water management approach. **Table 1** identifies the Program Preferences met by each of the projects included in this Proposal.

**Table 1 Program Preferences met by the Proposal projects**

Program Preferences	Cesar Chavez Project	Sunnydale Project
A. Includes regional projects or programs	✓	✓
B. Integrate Projects within a defined hydrologic subregion	N/A	N/A
C. Resolves water-related conflict between regions	N/A	N/A
D. Contribute to attainment of one or more CALFED objectives	✓	✓
E. Address critical water supply or water quality need of DAC	✓	✓
F. Effectively integrate water management with land use planning	✓	✓
G. Provides multiple benefits including water quality improvement	✓	✓
H. Address statewide priorities	✓	✓

One of the Program Preferences is “Address Statewide Priorities.” Both projects in this proposal address one or more Statewide Priorities included in the PSP, as shown in **Table 2**, and further described below.

Table 2 Statewide Priorities met by Proposal projects

Statewide Priorities	Cesar Chavez Project	Sunnydale Project
H.1 Practice Integrated Flood Management	✓	✓
H.2 Protect Surface and Groundwater Quality	✓	✓
H.3 Expand Environmental Stewardship	✓	✓
H.4 Use and Reuse Water More Efficiently	N/A	N/A
H.5 Drought Preparedness	N/A	N/A
H.6 Climate Change Response Actions	✓	✓
H.7 Improve Tribal Water and Natural Resources	N/A	N/A
H.8 Ensure Equitable Distribution of Benefits	✓	✓

### Certainty that Proposal Will Achieve Claimed Program Preferences

There are several factors that give the San Francisco Public Utilities Commission (SFPUC) a generally high level of certainty that the claimed Program Preferences will be met. An overlying reason is that projects included in the Proposal are well defined and a detailed analysis has been completed on a programmatic and individual level, as described below.

- *Wastewater Enterprise Capital Improvement Program.* Both projects are part of SFPUC's Wastewater Capital Improvement Program (WWE CIP). The WWE CIP is a multi-year planning effort aimed at developing system-wide improvements to address immediate and high priority challenges of the combined sewer system in a manner consistent with the vision and strategies for management of the City's wastewater and stormwater. The projects included in the WWE CIP are designed to address specific challenges in a manner that maximizes system wide reliability and flexibility. Through this master planning effort, SFPUC has considered the broader implications of the projects in terms of meeting water quality goals, sustainability goals, and reliability/flexibility goals.
- Both projects have completed a conceptual engineering report (CER) that includes a hydraulic analysis of the projects. This allows SFPUC to understand and quantify the hydraulic benefits of the projects related to flood damage reduction, and improved flood protection. It also allows SFPUC to quantify the water quality benefits of the projects.
- Both projects have completed conceptual design of all aspects of the project and have completed, or are nearing completion of, the final design of the projects. Completion of this detailed engineering work allows SFPUC to understand the project schedule and cost information of the projects.
- Both projects have completed environmental analysis and have obtained, or are in the process of obtaining, necessary permits. This allows SFPUC to further understand the environmental implications of the projects.

**Table 3** on the following page lists the program preferences met by this Proposal and describes the level of certainty each preference is met.

Table 3 Level of Certainty that Projects will Achieve Program Preferences

Program Preference	Certainty	Rationale
<b>A. Includes regional projects or programs</b>	HIGH	<ul style="list-style-type: none"> <li>The proposal includes projects that meet the definition of regional projects or programs as described by the CWC Section 10544. The projects are identified in the Bay Area IRWMP.</li> <li>The proposal will accomplish water quality improvements, water pollution prevention, and management of urban runoff through both structural and non structural means and will result in an improvement in water dependent recreation.</li> </ul>
<b>D. Contribute to attainment of one or more CALFED objectives</b>	HIGH	<ul style="list-style-type: none"> <li>Hydraulic modeling has shown that the Sunnydale project will reduce the volume of stormwater discharged to the Bay with primary level of treatment and will increase the amount of stormwater that receives full secondary treatment before discharge.</li> <li>Hydraulic modeling has shown that the LID component of the Cesar Chavez project will decrease the volume of stormwater entering the combined sewer system for eventual discharge to the Bay.</li> </ul>
<b>E. Address critical water supply or water quality need of DAC</b>	MEDIUM	<ul style="list-style-type: none"> <li>A census block review has shown that both the Sunnydale project and the Cesar Chavez projects are located in areas with populations of low-income residents.</li> <li>The projects will reduce the risk of flooding and potential for exposure to polluted stormwater by these residents.</li> </ul>
<b>F. Effectively integrate water management with land use planning</b>	HIGH	<ul style="list-style-type: none"> <li>Both projects are included in the SFPUC's WWE CIP, a master planning effort developed to address system wide challenges in a manner that is consistent with the long term vision for managing the City's stormwater and wastewater.</li> <li>The projects will address deficiencies due to changes in development since original sewers were installed 100 years ago and provide improved flood protection for current level of development and planned development in area.</li> <li>The Cesar Chavez project is part of a larger initiative to re-envision the Cesar Chavez corridor through integrated planning of multiple agencies within the City and County of San Francisco. Implementation of the project will allow other planned improvements to be made including pedestrian, transit and other streetscape improvements.</li> </ul>

Program Preference	Certainty	Rationale
<b>G. Provides multiple benefits including water quality improvements</b>	HIGH	<ul style="list-style-type: none"> <li>Both projects are designed to provide multiple benefits including water quality benefits.</li> <li>The Sunnydale project accomplishes water quality improvement through reducing the volume of combined sewer discharges (CSDs) and increasing the amount of flow that receives secondary treatment before being discharged to the Bay.</li> <li>The Cesar Chavez project reduces the volume of stormwater entering the combined sewer system through the implementation of LIDs which aim to capture stormwater.</li> </ul>
<b>H. Address statewide priorities</b>	--	The Proposal addresses 5 statewide priorities described below.
<b>H.1. Practice Integrated Flood Management</b>	HIGH	<ul style="list-style-type: none"> <li>The Proposal results in better preparedness and emergency response by addressing system inadequacies and providing system redundancy</li> <li>Hydraulic modeling has shown that both projects result in improved flood protection by eliminating flooding from the 5-year design storm, and reducing the risk of flooding for 10-year and 25-year design storms.</li> <li>Both projects provide a more sustainable flood and water management system. The projects have been designed to include system redundancies which allow SFPUC to take system components off line and conduct O&amp;M activities.</li> <li>Hydraulic modeling for the Sunnydale project and has shown that implementation of the project will increase the amount of storage available in the combined sewer system, thereby reducing the volume of flows that would need to be discharged as CSDs with primary treatment.</li> <li>The conceptual design for the LID component of the Cesar Chavez project has been completed; this component promotes integrated flood management through use of LID techniques that store and infiltrate runoff, thus reducing stormwater discharge and improving flood protection.</li> </ul>
<b>H.2. Protect Surface and Groundwater Quality</b>	HIGH	<ul style="list-style-type: none"> <li>Hydraulic modeling has shown that implementation of the Proposal will protect surface water quality: <ul style="list-style-type: none"> <li>The Sunnydale project will reduce the volume of CSDs, thereby reducing the volume of stormwater that is discharged to San Francisco Bay with primary level of treatment and increase secondary treatment</li> </ul> </li> </ul>

Program Preference	Certainty	Rationale
		<p>of discharges.</p> <ul style="list-style-type: none"> <li>○ The Cesar Chavez project includes LID features that will capture stormwater and reduce the volume of stormwater that will enter the combined sewer system for eventual discharge to the Bay.</li> </ul>
<b>H.3. Expand Environmental Stewardship</b>	HIGH	<ul style="list-style-type: none"> <li>• The Cesar Chavez project will promote environmental stewardship by implementing green infrastructure and LIDs which will enhance the urban watershed through tree plantings and other landscaping. Conceptual engineering for the implementation of LID components has been completed and the implementation of the LID components is consistent with the vision for the Cesar Chavez corridor.</li> <li>• The reduction in combined sewer discharges of the Sunnydale project will result in watershed improvement by protection near shore recreational uses at Candlestick Point and near shore Bay habitat ecosystems.</li> </ul>
<b>H.4. Climate Change Response Actions</b>	MEDIUM	<ul style="list-style-type: none"> <li>• The implementation of LID components will reduce the flows requiring treatment Southeast Water Pollution Control Plant, thereby reducing energy consumption.</li> <li>• Both projects proactively address adaption to climate change issues by identifying areas that may be affected by Bay inundation zones.</li> </ul>
<b>H.5. Ensure Equitable Distribution of Benefits</b>	MEDIUM	<ul style="list-style-type: none"> <li>• Both the Sunnydale project and the Cesar Chavez project are located in areas with a high population of low-income residents.</li> <li>• The projects will reduce the risk of flooding and potential for exposure to polluted stormwater by these residents.</li> </ul>

## Breadth and Magnitude of the Program Preferences to be Implemented

The breadth and magnitude of the Program Preferences to be implemented can be estimated as follows:

- **Breadth** – The extent to which the Program Preference is met: BROADLY if several aspects of the preference are addressed or FOCUSED if only specific aspects of the preference area addressed.
- **Magnitude** – The measureable, quantifiable extent of the preference being implemented: HIGH, MEDIUM, or LOW. In some cases there may be a strong qualitative rationale for the extent to which the preference would be implemented.

The breadth and magnitude to which the Program Preferences are met vary depending on the particular preference. The projects included in the Proposal will be implemented at specific locations, but many of the benefits will be more widely gained. Furthermore, the multi-benefit and integrative approach of the projects enables the Proposal to meet the relevant Program Preferences on a medium to high magnitude.

Table 11.4 below lists the program preferences met by this Proposal and describes the levels of breadth and magnitude each preference is met.

**Table 11.4 Breadth and Magnitude at which Projects Meet Program Preference**

Program Preference	Breadth	Magnitude	Rationale
<b>A. Includes regional projects or programs</b>	BROADLY	HIGH	<ul style="list-style-type: none"> <li>• The proposal includes projects that meet the definition of regional projects or programs as described by the CWC Section 10544. The projects are identified in the Bay Area IRWMP.</li> <li>• The proposal will accomplish water quality improvements, water pollution prevention, and management of urban runoff through both structural and non structural means and will result in an improvement in water dependent recreation and ecosystem health.</li> <li>• Hydraulic modeling has shown that the Sunnydale project accomplishes this through structural means and will provide a reduction in the volume of CSDs by 3 million gallons in a 5-year storm (35% reduction). This reduction in CSDs is predicted to provide an improvement in water-dependent recreation and ecosystem health; beach closures at Candlestick Point State Recreation Area are predicted to be reduced by 2 days as a result of the CSD volume reduction.</li> <li>• Hydraulic modeling has shown that the Cesar Chavez project will reduce the volume of stormwater entering the combined sewer system by 860,000 gallons annually through the implementation of LIDs.</li> </ul>

Program Preference	Breadth	Magnitude	Rationale
<b>D. Contribute to attainment of one or more CALFED objectives</b>	FOCUSED	MEDIUM	<ul style="list-style-type: none"> <li>The Proposal will contribute to the CALFED objective of Ecosystem Restoration to improve the ecological health of the Bay, as discussed below.</li> <li>Both projects benefit San Francisco Bay ecosystems through the reduction of discharges with primary level of treatment, thereby improving water quality and protecting habitat in adjacent coastal biological communities and the greater San Francisco Bay.</li> <li>Hydraulic modeling has shown that the Sunnydale project will reduce the volume of flows discharged to the Bay with primary level of treatment and will increase the amount of flows that receives full secondary treatment before discharge.</li> <li>Hydraulic modeling has shown that the LID component of the Cesar Chavez project will decrease the volume of stormwater entering the combined sewer system for eventual discharge to the Bay by 860,000 gallons annually.</li> </ul>
<b>E. Address critical water supply or water quality needs of DAC</b>	FOCUSED	MEDIUM	<ul style="list-style-type: none"> <li>Both the Sunnydale project and the Cesar Chavez project are located in areas with a high population of low-income residents.</li> <li>The projects will address the water quality needs of DACs by reducing the risk of flooding and potential for exposure to polluted stormwater by these residents.</li> <li>The Cesar Chavez Project includes a DAC (Census Block Group 060750209.002) within the project area that will directly experience water quality benefits from the project. There are also two DACs (Census Block Groups 060750605.021 and 060750605.022) in the vicinity of the Sunnydale project that will most likely benefit from the project.</li> </ul>
<b>F. Effectively integrate water management with land use planning</b>	BROADLY	HIGH	<ul style="list-style-type: none"> <li>Both projects are included in the SFPUC's WWE CIP - a planning effort developed to address system wide challenges in a manner that is consistent with the immediate and long term vision for managing the City's stormwater and wastewater.</li> <li>The projects will address deficiencies due to changes in development since original sewers were installed 100 years ago and provide improved flood protection for current level of development and planned development in area.</li> <li>The Cesar Chavez project is part of a larger initiative to re-envision the Cesar Chavez corridor through integrated planning of multiple agencies within the</li> </ul>

Program Preference	Breadth	Magnitude	Rationale
			City and County of San Francisco. In addition to streetscape improvements through proposed LID features in the project, implementation of the project will allow other planned improvements to be made including pedestrian, transit and other streetscape improvements.
<b>G. Provides multiple benefits including water quality improvements</b>	BROADLY	HIGH	<ul style="list-style-type: none"> <li>Both projects are designed to provide multiple benefits including water quality, flood management, coastal ecosystem and recreation benefits.</li> <li>Flood modeling has demonstrated that the Sunnydale project will eliminate flooding in the 5-year, 10-year and 25-year storms.</li> <li>Hydraulic modeling has demonstrated that Sunnydale project accomplishes water quality improvement through reducing the volume of combined sewer discharges (CSDs) by 3 million gallons and increasing the amount of flow that receives secondary treatment before being discharged to the Bay.</li> <li>Flood modeling has demonstrated that the Cesar Chavez project will eliminate flooding in the 5-year storm, reduce flooded area by 86% in the 10-year storm and 57% in the 25-year storm.</li> <li>Hydraulic modeling has demonstrated that the Cesar Chavez project reduces the volume of stormwater entering the combined sewer system and the Bay by 860,000 gallons through the implementation of LIDs which aim to capture stormwater.</li> <li>In addition to flood and water quality benefits at the project sites, both projects will benefit adjacent coastal areas which have multiple beneficial uses including fishing, water contact recreation and non-water recreation. The projects will also have ecosystem benefits associated with decreased stormwater discharges of water with primary level of treatment.</li> <li>The conceptual design completed on the Cesar Chavez project includes LID features (up to 2,900 square feet of planted area) which will also provide aesthetic benefits, in addition to water quality and flood management benefits.</li> </ul>
<b>H. Address statewide priorities</b>		--	The Proposal addresses 5 statewide priorities as described below.
<b>H.1. Practice Integrated Flood Management</b>	BROADLY	HIGH	<ul style="list-style-type: none"> <li>The Proposal results in better preparedness and emergency response by addressing system inadequacies and providing system redundancy.</li> </ul>



Program Preference	Breadth	Magnitude	Rationale
			<ul style="list-style-type: none"> <li>Hydraulic modeling has shown that both projects result in improved flood protection by eliminating flooding from the 5-year design storm, and significantly reducing the risk of flooding for 10-year and 25-year design storms.</li> <li>Both projects provide a more sustainable flood and water management systems. The projects include system redundancies which allow SFPUC to take system components off line and conduct O&amp;M activities.</li> <li>The Sunnydale project increases the amount of storage available in the combined sewer system, thereby reducing the volume of flows that would need to be discharged as CSDs (reduction of 3 million gallons) with primary treatment.</li> <li>The Cesar Chavez includes green infrastructure components such as 2,100 sf of stormwater bioretention planters and 50 trees that promote integrated flood management through use of LID techniques that store and infiltrate runoff, thus reducing stormwater discharge and improving flood protection.</li> </ul>
<b>H.2. Protect Surface and Groundwater Quality</b>	FOCUSED	HIGH	<ul style="list-style-type: none"> <li>Hydraulic modeling has shown that implementation of the Proposal will protect surface water quality.</li> <li>Hydraulic modeling has shown that the Sunnydale project will reduce the volume of CSDs by 3 million gallons, thereby reducing the volume of stormwater that is discharged to San Francisco Bay with primary level of treatment and increase discharges that receive full secondary treatment at the Southeast Water Pollution Control Plant.</li> <li>The Cesar Chavez project includes LID features that will capture stormwater and reduce the volume of stormwater that will enter the combined sewer system for eventual discharge to the Bay.</li> <li>Reducing the volume of stormwater discharge to the Bay will improve the protection of beneficial uses, including fishing, water contact recreation and non-water recreation.</li> </ul>
<b>H.3. Expand Environmental Stewardship</b>	BROADLY	MEDIUM	<ul style="list-style-type: none"> <li>The Cesar Chavez project will promote environmental stewardship by implementing green infrastructure and LIDs which will enhance the urban watershed through tree plantings (approximately 50 trees) and other landscaping (2,100 sf of stormwater bioretention planters). Conceptual engineering for the implementation of LID components has been completed</li> </ul>

Program Preference	Breadth	Magnitude	Rationale
			<p>and the implementation of the LID components is consistent with the vision for the Cesar Chavez corridor.</p> <ul style="list-style-type: none"> <li>• The Cesar Chavez project will also benefit water recreational uses, such as kayaking, at Islais Creek Park through improved water quality.</li> <li>• The water quality benefits of the Sunnydale project will result in watershed improvement by protection of near shore recreational uses at Candlestick Point and near shore Bay habitat ecosystems. Hydraulic modeling shows that it will reduce beach closures by 2 days as a result in the CSD volume reduction.</li> </ul>
<b>H.4. Climate Change Response Actions</b>	FOCUSED	MEDIUM	<ul style="list-style-type: none"> <li>• The implementation of LID components will reduce the flows requiring treatment Southeast Water Pollution Control Plant, thereby positively impacting energy consumption.</li> <li>• Both projects proactively address adaption to climate change issues by identifying areas that may be affected by Bay inundation zones.</li> <li>• Both projects increase the ability of the stormwater system to minimize impacts of larger or more variable storm events by reducing runoff or increasing storage capacity.</li> </ul>
<b>H.5. Ensure Equitable Distribution of Benefits</b>	FOCUSED	MEDIUM	<ul style="list-style-type: none"> <li>• Both the Sunnydale project and the Cesar Chavez project are multi-benefit projects located in areas with a high population of low-income residents.</li> <li>• The projects will reduce the risk of flooding and potential for exposure to polluted stormwater by these residents.</li> </ul>